



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/885,767	06/20/2001	Ancil S. Taylor JR.	B6181	4002
378	7590	02/17/2004	EXAMINER	
DENNIS T. GRIGGS 17950 PRESTON ROAD SUITE 1000 DALLAS, TX 75252			CECIL, TERRY K	
			ART UNIT	PAPER NUMBER
			1723	

DATE MAILED: 02/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/885,767

Applicant(s)

TAYLOR, ANCIL S.

Examiner

Mr. Terry K. Cecil

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 4 is objected to because of the following informalities: "an" before "slurry" the fourth to the last line in the claims should be changed to —a—. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-4 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are indefinite because of the following reasons:

- Applicant has amended the claims such that hopper is not part of the slurry processing unit; this unclear since, as shown in his drawings, the hopper is part of the slurry processing unit. The hopper being part of the processing unit is also implied by the applicant's arguments when he states that his closed loop configuration includes the slurry processing unit, delivery pipeline, on-shore treatment vessel, and return pipeline are all connected in series (page 10, lines 7-9 of his arguments). The slurry processing unit of his closed-loop slurry processing system comprises a hopper.

Claim Rejections - 35 USC ' 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

Determining the scope and contents of the prior art.

Ascertaining the differences between the prior art and the claims at issue.

Resolving the level of ordinary skill in the pertinent art.

Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taylor, Jr. (U.S. 5,269,635), hereinafter "Taylor" in view of the Japanese Reference 56059931-A, hereinafter '931, and Elmore et al. (U.S. 4,416,567) and in view of Sheets (U.S. 2002/0113017-A1). Taylor discloses a slurry processing system comprising the following:

- a slurry processing unit aboard dredging barge 12 coupled to an onshore chemical treatment facility 16 via a slurry delivery line 14 [as in claims 1, 3 and 4];
- a slurry processing unit that includes a sludge hopper 22, a make-up water pump 30, make-up water piping (e.g. 60 and connected lines), a slurry inlet pump 26, a slurry discharge pump 32, and discharge inlet piping 28 (slurry piping); discharge piping 40 connected between the discharge pump and the slurry delivery line 14 [as in claims 2 and 3];

Art Unit: 1723

- the following limitations of claim 4 including a discharge pump 32, inlet slurry pump 26, and slurry piping therebetween; discharge piping 40 connected between the discharge pump and the slurry pipeline, wherein the slurry pipeline is buoyant; and a make-up water line including a plurality of injection stations for specific gravity adjustment (via control signals 92, 94, 96) [as in claim 4].

Taylor does not disclose a make-up water return line connected between the treatment facility and the slurry processing unit for returning the water separated from the slurry to the processing unit. However, '931 teaches such a water make-up return line 9 [as in claims 1, 2, 3 and 4] that returns water separated from the "treatment facility" that includes containment tank 5 to a sludge container 11 (analogous to the hopper of Taylor) of the slurry processing unit. It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to have the make-up water return line of '931 connected between the make-up water pump 30 and the onshore treatment facility 16 of Taylor and to include a line to introduce make-up water into slurry processing unit of Taylor, since '931 teaches benefits of using recycled water for transporting dredged slurry between a slurry processing unit and an on-shore treatment facility without contaminating water quality and without discharging the contaminated water and muddy water into a body of water (as explained on page 2 of the translation included herewith). It would also be obvious to the skilled man to recycle the water in order to prevent toxic slurry contaminants that may remain in the separated water from contaminating the land area around the treatment facility—in order to comply with laws established by the EPA (such laws are explained by the applicant on page 3).

Art Unit: 1723

Taylor in view of '932 does not teach the return line returning the treatment water as make up water into the hopper of the dredge to make a closed loop system. However, such is taught by Elmore. In Elmore water from "treatment container" 18 is recycled to the hopper for mixing with the mined particular (analogous with the dredged material of Taylor) to form a slurry for transporting to a remote treatment unit. It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to have the return line of Taylor, as modified by '932 to include returning the treatment water into the hopper, since Elmore teaches the benefit of mixing to form a slurry for transport to a remote location for treatment.

Taylor teaches a buoyant slurry delivery line; upon modification with '931 and Elmore, it would have been obvious for the make-up line to be buoyant as well [as in claims 3 and 4], since both lines are connected between the same processing unit and treatment facility. Also upon modification, the make-up pump 30 of Taylor would be considered a booster pump and the pump 4 of '931 at the on-shore containment tank would need only be a low pressure type [as in claim 2] when added to Taylor since the water/air stream for dredging would not be present (in Taylor such is accomplished by other elements of the dredging barge).

Note: The treatment facility and the elements thereof listed in the preambles of the independent claims are interpreted as being in combination with the elements listed in the body of the claims.

Art Unit: 1723

Applicant has amended the independent claims to require the on-site treatment facility to include a "means for discharging a chemical decontamination reagent into the containment vessel" for treating the slurry. *The equivalent structure for the aforementioned "means for" clause is the spray nozzle assembly 114 shown in e.g. figure 4.* Although Taylor teaches chemical treatment at the on-shore facility, he does not teach a spray nozzle assembly for discharging reagent into a containment vessel. However, such is taught by Sheets—as shown in figure 2 thereof [as in claims 1, 3 and 4]. It is considered that it would have been obvious to one ordinarily skilled in the art at the time of the invention to have the spray assembly of Sheets in the containment tank of Taylor, as modified by '931 and Elmore, since Sheets teaches the benefit of removing toxic materials from dredged slurry to prevent contamination (abstract).

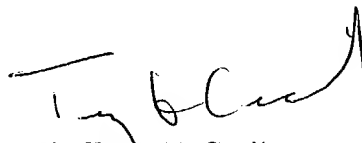
Response to Arguments

6. Applicant's arguments with respect to claims 1-4 have been considered but are moot in view of the new grounds of rejection necessitated by amendment. However, it is pointed out that upon modification of Taylor in view of '931 with the recycle line into a hopper of Elmore, the closed recycle system argued by the applicant is taught.

Art Unit: 1723

7. Contact Information:

- Examiner Mr. Terry K. Cecil can be reached at (571) 272-1138 at the Carlisle campus in Alexandria, Virginia for any inquiries concerning this communication or earlier communications from the examiner. Note that the examiner is on the increased flextime schedule but can normally be found in the office during the hours of 8:30a to 4:30p, on at least four days during the week M-F.
- Wanda Walker, the examiner's supervisor, can be reached at (571) 272-1151 if attempts to reach the examiner are unsuccessful.
- The Fax number for this art unit for official faxes is 703-872-9306.
- Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mr. Terry K. Cecil
Primary Examiner
Art Unit 1723

TKC
February 5, 2004